

July 3, 2003

Gentlemen:

Please find enclosed:

Request For Proposal (RFP 18-03) Digital Ortho Imagery

Macomb County, Michigan is seeking proposals for professional services to create ortho imagery for the geographic area of Macomb County per the specifications attached.

Proposals should be prepared simply and economically, providing a straightforward, concise description of the Respondent's ability to meet the requirements of the RFP. Emphasis should be on completeness and clarity of content.

All proposals must be received at the Macomb County Purchasing Department prior to 2:00p.m., E.S.T on Thursday, July 31, 2003. No faxed proposals will be accepted and any proposals received after the deadline will be returned unopened and marked "TOO LATE".

Thank you for your interest in this project.

Very truly yours,

Polly A. Helzer
Purchasing Manager

PAH:jrm

Attachments

MACOMB COUNTY, MICHIGAN

DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT

June 30, 2003

Bid Number 18 - 03



**Macomb County
Department of Planning
& Economic Development**

TABLE OF CONTENTS

PART I	INTRODUCTION	Page 1
PART II	INSTRUCTIONS AND GENERAL INFORMATION FOR THE CONTRACTOR	Page 3
PART III	SCOPE OF WORK	Page 7
PART IV	DELIVERABLES / FINAL PRODUCTS	Page 10
PART V	INFORMATION REQUIRED FROM THE CONTRACTOR	Page 12
PART VI	MACOMB COUNTY QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES	Page 15
PART VII	CRITERIA FOR SELECTION	Page 18

ATTACHMENTS

ATTACHMENT A	REGIONAL SETTING
ATTACHMENT B	FORMAL INTENT TO RESPOND
ATTACHMENT C	COST RESPONSE FORM

PART I INTRODUCTION

- I-1. **OVERVIEW:** Macomb County, Michigan is distributing a digitally acquired ortho imagery specification and soliciting responses to promote the acquisition of digitally acquired ortho imagery for the geographic area of Macomb County. The purpose of this acquisition is to obtain digitally acquired ortho imagery, to support the following: (1) integration with Macomb County's Developing ESRI based Geographic Information System (GIS), (2) continued support of an accurate E911 road centerline/address coverage and (3) maintenance of a contiguous parcel coverage. Once completed, this project will provide updated digitally acquired ortho imagery that will assist significantly in various projects that are taking place in the Department of Planning & Economic Development.
- I-2. **BACKGROUND:** Macomb County is located in the northern portion of the Detroit, Michigan metropolitan area (Attachment A – Location Map) The County encompasses 482 square miles containing 13 geographic townships. Macomb County's 2000 population of 788,149 ranks the County third in population in Michigan. The County has approximately 325,000 parcels of property and an increase, or maintenance load of over 5,000 parcels per year. Macomb County is bounded on the north by Lapeer and St. Clair counties, on the west by Oakland County, on the south by Wayne County and on the east by Lake St. Clair.

Beginning in the early 1990's, the Macomb County Department of Planning and Economic Development entered the GIS arena with the acquisition of MapInfo mapping software. Internal and external departmental needs focused on the development of maps and applications, which relied heavily on the U.S. Census Department's 1990 Census of Population and Housing STF1A, STF1B, and 1990 TIGER Line Files. Recognizing a growing need for more precise data sets, Department staff began creating custom data sets for both internal and external County department/agency uses. Relying upon data contained within the Michigan Resource Inventory System (MIRIS) [based upon 1:24,000 U.S.G.S. 7.5' quadrangle maps], some of the first successful projects included assisting in developing flight lines for the County's gypsy moth suppression program and the development of a County maintained drains coverage. In the spring of 1999, the Department migrated its GIS operations to ESRI based products. Current projects include the automation and maintenance of a county-wide road centerline coverage to assist in law enforcement dispatch and the development of a county wide parcel coverage. Phase I of parcel coverage development, which encompassed heads up digitizing of the property boundaries of 2,600 map sheets, has been completed. Phase II, included attribution of parcel tax ID numbers and deeded dimension data. The current phase, phase III, is focusing on the construction of a contiguous

map coverage of all the parcels. This phase is currently being executed and is expected to be complete in Spring of 2004. Perpetual maintenance of this investment will rely greatly upon the acquisition of digital orthophotography in the Fall 2003.

PART II

INSTRUCTIONS AND GENERAL INFORMATION FOR THE CONTRACTOR

- II-1. **PROBLEM STATEMENT:** The Macomb County Department of Planning and Economic Development (the Department) is seeking assistance from qualified consultants to conduct a Fall 2003 digitally acquired ortho imagery flight according to an approved Work Program to be developed by the selected Respondent and approved by the Department.

Process. The proposal submitted to meet the requirements listed in this Request For Proposal (RFP) outlines the various tasks required to create orthorectified imagery. When all the proposals have been reviewed through the vendor selection process, and a contractor is selected, the project may proceed.

Timing. The flight is to be conducted in the Fall 2003 when the deciduous trees have lost their leaves with an option for a first schedule spring 2004 if suitable flight conditions cannot be met. The products will be returned to the Department in a timely manner as described in this RFP under the section of QA/QC.

Funds. Project funds for the digital ortho imagery acquisition flight are authorized by the Macomb County Board of Commissioners. Funds are only available to pay for the work authorized by the Macomb County Board of Commissioners, based on a selected proposal that meets the requirements of this RFP.

- II-2. **RFP CONTACT BETWEEN MACOMB COUNTY AND RESPONDENTS**

Questions concerning technical specifications should be directed to Mr. Jeffrey Schroeder, AICP, while bid process questions should be directed to Ms. Polly Helzer. After completing the **Intent to Respond Form (Attachment B)**, Respondents may fax or submit a written request with questions to:

Bid Process Specifications:

Ms. Polly A. Helzer, Purchasing Manager
Macomb County Purchasing
10 N. Main Street
Mt. Clemens, Michigan 48043
Phone: (586) 469-7480
Fax: (586) 469-6612

Technical Specifications:

Mr. Jeffrey Schroeder,
Project Manager GIS & Graphic Services
Department of Planning & Economic Dev.
1 South Main
Mt. Clemens, Michigan 48043
Phone: (586) 469-5064
Fax: (586) 469-6787

- II-3. **TYPE OF NEGOTIATIONS:** Negotiations may be undertaken with those Respondents whose proposals as to price and other factors show them to be qualified, responsible and capable of performing the work. The contract that may be entered into will be that most advantageous to the County in terms of price and other factors considered. The Macomb County Department of Planning and Economic Development reserves the right to consider proposals or modifications thereof received at any time before award is made, if such action

is in the best interest of the County.

- II-4. **REJECTION OF PROPOSALS:** The Macomb County Department of Planning and Economic Development reserves the right to reject any and all proposals received as a result of this RFP, or to negotiate separately with any source whatsoever in any manner necessary to serve the best interests of the County. This RFP is made for information or planning purposes only. The Department does not intend to award a contract solely on the basis of any response made to this request.
- II-5. **INCURRING COSTS:** Macomb County is not liable for any cost incurred by contractors prior to issuance of a contract.
- II-6. **INQUIRES:** Prior to the Department answering any questions regarding the RFP, Respondents must submit an **Intent to Respond Form (Attachment B)**. Questions that arise subsequent to the release of the RFP must be submitted in accordance with section II-2. Questions and answers thereto will be provided all Respondents; however, the names of Respondents submitting questions will not be disclosed.
- II-7. **ADDENDA TO THE RFP:** In the event it becomes necessary to revise any part of this RFP, addenda will be provided by certified mail to all contractors who received the basic RFP.
- II-8. **RESPONSE DATE:** To be considered, proposals must arrive on or before 2:00 P.M., E.S.T. July 31, 2003 and delivered to:
- Macomb County Purchasing Department – 13th Floor
Attn: Ms. Polly A. Helzer, Purchasing Manager
10 N. Main Street
Mt. Clemens, Michigan 48043
RE: Digital Orthophotography RFP – SEALED BID ITEM 18-03
Solicitation Deadline: Thursday, July 31, 2003 – 2:00 P.M.
- II-9. **PROPOSALS:** To be considered, Respondents must submit a complete response to this RFP that must follow the format provided in the chart in **Section V-10**. In addition, the Respondent must provide 4 copies of the proposal to the Purchasing Department. No other distribution of proposals will be made by the Respondent. Proposals must be signed by an official authorized to bind the Respondent to its provisions. For this RFP, the proposal must remain valid for at least 90 days.
- II-10. **ACCEPTANCE OF PROPOSAL CONTENT:** The contents of the proposal of the successful Respondent will become contractual obligations, if a contract ensues. Failure of the successful Respondent to accept these obligations will result in cancellation of the award.

- II-11. **ECONOMY OF PREPARATION:** Proposals should be prepared simply and economically, providing a straightforward, concise description of the Respondent's ability to meet the requirements of the RFP. Emphasis should be on completeness and clarity of content.
- II-12. **ORAL PRESENTATION:** Select Respondents who submit a proposal may be required to make an oral presentation of their proposal to the Macomb County Department of Planning and Economic Development and a Technical Review Committee as appropriate. These presentations provide an opportunity for the Respondent to clarify their proposal to insure thorough mutual understanding. If needed, the Department will schedule these presentations.
- II-13. **PRIME RESPONDENT RESPONSIBILITIES:** It is the responsibility of the selected Respondent to provide all products offered in the RFP regardless if they are created by a third party. Further, the Department will consider the selected Respondent to be the sole point of contact with regard to contractual matters, including payment of any and all charges resulting from the contract.
- II-14. **CONTRACT PAYMENT SCHEDULE:** Payment for any contract entered into as a result of this RFP will be negotiated with the successful Respondent.
- II-15. **NEWS RELEASES:** News releases pertaining to this RFP or the service, study or project to which it relates will not be made without Department approval.
- II-16. **DISCLOSURE OF PROPOSAL CONTENTS:** After contract award, a summary of total price information for all submissions will be furnished to those Respondents participating in this RFP upon their request. Except for this summary of total prices, cost and price information provided in the proposal will be held in confidence and will not be revealed or discussed with competitors. If a proposal contains any information that the Respondent does not want disclosed to the public or used by the Government for any purpose other than evaluation of their offer, each sheet of such information must be marked with the following legend:
- “This information shall not be disclosed outside the Macomb County Department of Planning and Economic Development or be duplicated, used or disclosed in whole or in part for any purpose other than to evaluate the proposal; provided, that if a contract is awarded to this offerer, or as a result of, or in connection with the submission of such information, the Planning and Economic Development Department shall have the right to duplicate, use or disclose this information to the extent provided in the contract. This restriction does not limit the right of the Department to use information contained herein if obtained from another source.”
- II-17. **INDEPENDENT PRICE DETERMINATION**
- a. By submission of a proposal, the offerer certifies, and in the case of a joint proposal each

party thereto certifies as to its own organization, that in connection with this proposal:

- (1) The prices in the proposal have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other offerer or with any competitor; and
- (2) Unless otherwise required by law, the prices which have been quoted in the proposal have not been knowingly disclosed by the offerer and will not knowingly be disclosed by the offerer prior to award directly or indirectly to any other offerer or to any competitor; and
- (3) No attempt has been made or will be made by the offerer to induce any other person or firm to submit or not to submit a proposal for the purpose of restricting competition.

b. Each person signing the proposal certifies that:

- (1) He/She is the person in the offerer's organization responsible within that organization for the decision as to the prices being offered in the proposal and that he/she has not participated, and will not participate, in any action contrary to a. (1), (2) and (3) above: or
- (2) He/She is not the person in the offerer's organization responsible within that organization for the decision as to the prices being offered in the proposal but that he/she has been authorized in writing to act as agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to a. (1), (2) and (3) above, and as their agent does hereby so certify; and that he/she has not participated, and will not participate, in any action contrary to a. (1), (2) and (3) above.

c. A proposal will not be considered for award if the sense of the Statement required in the Cost and Price Analysis portion for the proposal has been altered so as to delete or modify a. (1), a. (3) or b. above. If a. (2) has been modified or deleted, the proposal will not be considered for award unless the offerer furnishes with the proposal a signed statement which sets forth in detail the circumstances of the disclosure and the Department determines that such disclosure was not made for the purpose of restricting competition.

II-18. **OFFERER LIABILITY:** The offerer will provide and maintain public liability, property damage, and worker's compensation insurance insuring, as they may appear, the interests of all parties to any agreement that results from this RFP. The offerer is responsible for insuring that all precautions are exercised at all times for the protection of all persons and property. The offerer shall secure all necessary certificates and permits from municipal or other public authorities and comply with all national, State and municipal laws, ordinances

and regulations as may be required.

PART III SCOPE OF WORK

- III-1. **OVERVIEW:** The following sections outline the five key areas of the proposed work. Respondents are encouraged to offer suggestions for improving upon the specifications, requirements and data designs presented. It is the Respondent's responsibility to describe thoroughly, in narrative format, how the work detailed in each section will be completed and to include all relevant specifications and parameters. The Department reserves the right to modify and further develop project specifications with the selected Respondent.
- III-2. **SURVEY CONTROL NETWORK TARGETING & DENSIFICATION:** The survey control network developed for this project must support topographic mapping at National Map Accuracy Standards (NMAS) for 1" = 200' or 1:2,400 scale mapping and support the continued use of an existing two foot (2') contour coverage. Horizontal and vertical ground control for the project should leverage the County's existing digital terrain model (DTM). The current DTM is a product of the County's 2000 digital orthophotography project established to support the same parameters specified in this proposal. Additional ground control, determined as necessary to densify the existing DTM, should be collected and recorded in the State Plane Coordinate System (Michigan South, NAD 83 datum, international feet; NAVD 88). All ground control utilized in the project must be targeted in photo identifiable locations. A sample of the existing DTM with horizontal and vertical control in ESRI GRID or TIN format is available for review from the Macomb County Department of Planning and Economic Development. Respondents must detail collection procedures, the number and spatial alignment of control points necessary to densify the County's existing DTM and must be documented in an ESRI based point coverage.
- III-3. **DIGITAL ORTHO IMAGERY ACQUISITION:** The digital ortho imagery collected for this project must support the development of digital imagery with a 6" pixel resolution and the ability to be utilized for 1"=200'. New black and white digital ortho imagery must be obtained in the Fall 2003. All imagery must be captured from the same altitude to assure an appropriate photo negative scale. The digital ortho imagery must be obtained when the sky is clear of clouds, haze, smoke, dust and when ground and water bodies are free of snow and ice. Further, all deciduous trees must be in a leaf off state to ensure minimum ground obstruction from the existing tree canopy. Acquisition of imagery within the east central portion of the County (Harrison Township) may require Department of Defense (DOD) clearance for entry into Selfridge Air National Guard Base airspace.

Digital aerial camera specifications and all approved flight plans must be submitted to the Department prior to acquiring the imagery. In addition, the successful respondent shall notify the Department on the day that the imagery is being captured for verification of conditions. Any digital ortho imagery that does not meet the final specifications defined within the

project contract must be corrected at no additional cost to the County. Further, any and all reflights must coincide with the same accepted specifications and flight parameters.

Imagery shall be collected utilizing a direct digital aerial mapping camera with a minimum cross-track resolution of 10,000 pixels. The camera used shall output imagery directly to a digital medium in flight without intermediate storage to film or other analog medium. The camera used shall have a minimum radiometric sampling resolution of eight bits and be responsive to light wavelengths covering a minimum range of 600-800nm. The camera shall provide a means by which the operator can monitor image exposure, during collection, and make appropriate exposure adjustments to maximize the amount of useable imagery content available in the recorded imagery.

Any RFP response must include a detailed report containing all relevant specifications/parameters for acquiring digital ortho imagery, including, but not limited to the below list.

Flight altitude	Camera Specifications	Flight Lines/Direction
Maximum Crab	Maximum Sun Angle	Image Frame Coverage
Proposed Endlap	Proposed Sidelap	Time of Day For Flight
Negative Scale	Qualifications for DOD Airspace	Maximum Tilt

III-4 AIRCRAFT ATTITUDE DATA COLLECTION: High accuracy position and attitude sensors shall be operated simultaneously with the camera. Data sensor shall support derivation of camera position solutions with a minimum average absolute accuracy of 10 cm. Data from the sensors shall support derivation of camera attitude solutions with a minimum average absolute pitch and roll accuracy of 30 arc/sec and a minimum average absolute heading accuracy of 60 arc/sec. The bidder is required to use airborne GPS technology to collect the x, y, and z position of the aircraft and an Inertial Measurement Unit (IMU) to collect aircraft attitude position.

III-5 POSITIONAL MATCH AND IMAGE EXTENTS: The DEM, flight paths, and ground control used for the Fall 2003 digital ortho imagery project shall be used to ensure that the new imagery is positionally the same as the 2000 imagery.

The digital imagery shall extend a minimum of 1000 feet beyond the border of the County. The images shall have a smooth edge along the entire buffered length of the county. The “no data” areas of the remaining image tile without digital ortho imagery shall default to black in color.

III-6 DIGITAL ORTHO IMAGERY PRODUCTION: –Delivered images must be seamless and tone matched. All images must be georeferenced, edge matched and free of any pixel gaps. Grey-tone and histogram matching must be completed globally across the entire project area.

The final mosaic of the entire county will be uniform in contrast and shade to eliminate any noticeable variations from the digital ortho imagery flight lines. Each image shall be radiometrically adjusted to compensate for non-uniformities present in the sensing elements of the camera. Each image shall be further adjusted to compensate for tonal differences due to varying lighting conditions and surface response. Digital ortho images shall not contain digital artifacts, defects or inconsistencies in tone and density between individual and/or adjacent image tiling that materially reduce the utility of the digital ortho images. The Department has developed procedures and criteria for quality control and quality assurance (QA/QC) for evaluating the quality of images once delivered (detailed in Part VI). Any digital images that do not meet these criteria will be returned to the successful Respondent for reprocessing at no additional cost to the County.

The following tiling schemes are proposed for the deliverable images:

¼ Public Land Survey Section – uncompressed TIFF with World File

Deliverable products must be georeferenced, using methods and techniques compatible with current ESRI products (ArcMap 8.3).

- III-7. **SAMPLE OF PRODUCTS ON CD:** The Department requests a sample of similar work. The data should be provided on a CD and must include two digital ortho images with separate flight lines. All the sample data must come from the same project to allow for analysis of data integration. The Department will use similar techniques listed in the QA/QC section to review the sample data.

III-8. **PERFORMANCE REQUIREMENTS:**

ArcGIS/ArcInfo Coverage Format Deliverables

At a minimum, the Respondent must provide the data in an ESRI compatible format.

All data must be delivered in the Michigan State Plane South Zone Coordinate System, using the North American Datum (NAD 83) International Feet, NAVD 88.

All coverages must be delivered in ArcGIS/ArcInfo 8.3 format. If available at the time of delivery, a more current ArcGIS/ArcInfo format may also be accepted.

PART IV

DELIVERABLES / FINAL PRODUCTS

- IV-1. **Final Products:** All final products must be submitted to the Department and will become the property of Macomb County. The Department reserves the right to negotiate to allow the successful Respondent to hold the copyright to the products if the Department deems that as being in the best interest of the County. In addition, the Department reserves the right to negotiate inclusion of all or a portion of the products listed below into the final contract. Products will not become final deliverables until they have been processed through both the successful Respondent's QA/QC process and the Department's QA/QC process and have been deemed acceptable by the Department.
- IV-2 **Delivery Coordination:** For purposes of internal QA/QC the County requires that final digital ortho images be delivered in groups of geographic townships. It is the intention of the Department to QA/QC these images and returning erroneous images and coverages to the successful Respondent for correction. Correction of errors, if technically feasible, will be required before the next geographic township is delivered for QA/QC. This approach is necessary to facilitate the continuation of the Department's parcel conversion program. Details of this requirement, including a list detailing the order of geographic townships to be delivered, will be addressed during contract negotiations with the successful Respondent.
1. **Final Products List:** Listed below are the required final products along with brief descriptions as to how the Department envisions the development of the individual products. All data sets shall be delivered within 90 business days from collection of the imagery and availability of the DEM and control.
 2. **DTM Masspoints Coverage:** – Masspoints in a DTM are points on the earth's surface having a known elevation, as well as known positional coordinates. They are used in the rectification of aerial photography into orthophotos and in adjusting other data to account for distortions due to terrain.
 3. **¼ Public Land Survey System (PLSS) Sections:** - The Department requires that the smallest digital image be ¼ sections of the PLSS. The files shall be provided in TIFF World File format and be non-compressed. The successful Respondent shall include an ArcInfo polygon coverage, which indexes the individual image tiles. Details of this specification will be development of a work plan.
 4. **Metadata:** - The successful Respondent shall supply the Department with FGDC compliant metadata for the products created during the completion of this RFP.
 5. **Errata Reports:** - Errors and data discrepancies found during the DTM densification, targeting and image acquisition must be reported in the form of Errata sheets. The specific format and content for the Errata sheets will be finalized during work plan development.

The Department reserves the right to modify or alter the specific requirements of each of these products once a successful Respondent has been selected and the successful Respondent and Department enter into contract negotiations.

PART V

INFORMATION REQUIRED FROM CONTRACTOR

Proposals must address each section listed below and be submitted in the format outlined below:

- V-1. **BUSINESS ORGANIZATION:** State the full name and address of your organization and, if applicable, the branch office that will perform or assist in performing the work hereunder. Indicate whether you operate as an individual, partnership or corporation; if as a corporation, include the state in which you are incorporated. If appropriate, state whether you are licensed to operate in the State of Michigan. In addition, state similar information for all sub-contractors that will be included in the proposal.
- V-2. **STATEMENT OF THE PROBLEM & MANAGEMENT SUMMARY:** State in succinct terms your understanding of the problem presented by this RFP. Include a narrative description of the proposed effort in completing the tasks listed in the “scope of work” section of this RFP.
- V-3. **WORK PLAN:** Describe in narrative form your technical plan for accomplishing the work. Indicate the number of person-hours you have allocated for each task and specify whether the work will be completed by your organization or a sub-contractor. Include a calendar that depicts the number of days or weeks each task will take and an anticipated date for the completion of each task.
- V-4. **PROGRESS REPORTS:** The successful Respondent will supply the Department with periodic updates on the progress of the project. The report shall briefly describe how the successful Respondent is meeting their calendar timeline.
- V-5. **PRIOR EXPERIENCE IN DIGITAL ORTHO IMAGERY CREATION:**
Proposals submitted should include, in this section, qualifying experience. This section should include project descriptions (including population and size of area), costs, and starting and completion dates of projects successfully completed. Also, the name, address, and phone number of the responsible official of the client organization who may be contacted. Include information on the experience of sub-contractors as it relates to their role in meeting the requirements of this RFP. Indicate prior work that included deliverables in ESRI, ArcGIS/ArcInfo formats. If you have completed prior work in Michigan, include information on these projects.
- V-6. **PERSONNEL:** The consulting firm must be able to staff a project team that possesses talent and expertise in the field of digital ortho-imagery production. Include the number of executive and professional personnel by skill and qualification that will be employed in the work. Identify key individuals by name and title and provide a summary of their prior experience in the task that they will be doing during the completion of this RFP work.

- V-7. **AUTHORIZED NEGOTIATORS:** Include the names and phone numbers of personnel of your organization authorized to negotiate the proposed contract.
- V-8. **COSTS AND PRICE ANALYSIS:** The information requested in this Section is required to support the reasonableness of your quotation and is for internal staff use only. The Department reserves the right to renegotiate cost if contractor should receive award for flying any neighboring counties. The data will be held in confidence and will not be revealed to or discussed with competitors. Respondents are required to address each of the items below and to complete the cost analysis form found in **Attachment C**.
1. **Personnel Costs.** Itemize so as to show the following for each category of personnel with different rate per hour:
 - a) Category; e.g., project manager, senior analyst, etc.
 - b) Estimated hours
 - c) Rate per hour
 - d) Total cost for each category and for all personnel needs
 2. **Survey control network densification**
 3. **Aerial digital ortho imagery acquisition capture**
 4. **Digital ortho imagery production**
 5. **Production of deliverables**
 6. **Other direct costs.** Itemize
 7. **General and administrative burden or overhead.** Indicate percentage and total.
 8. **Transportation costs.** Show travel costs and per diem separately.
 9. **Total price bid for project.**
 10. **Independent price determination.** Include a statement substantially as follows: “This cost and price analysis is submitted in full compliance with the provisions of the paragraph titled ‘Independent Price Determination’ in Part II of the RFP to which this proposal is a response.”

V-9. **ADDITIONAL INFORMATION AND COMMENTS:** Include any other information that is believed to be pertinent but not specifically asked for elsewhere.

V-10. **RESPONDENT COMPLIANCE, RESPONSE AND PRICING**

IMPORTANT NOTE:

Respondent by submitting this bid agrees and understands the stated paragraphs and agrees to comply in full.

Respondents must use the following chart as a method for assuring that all sections of the RFP have been completed. Place a check in the completed column after the section has been addressed. Respondents shall mark the “Exception” column for each paragraph item that the respondent does not agree to comply in full. “Exceptions” to the stated requirements must be fully explained in an Appendix to the Respondent’s response to the RFP with each paragraph item identified by number and description.

Section	Description	Completed	Exception
Attachment B	Formal Intent To Respond is Mailed		
III-2	Explain The Survey Control Network Targeting & Densification		
III-3	Explain Process of Digital Ortho Imagery Acquisition		
III-5	Explain Positional Match/Extents of Existing Orthophotography		
III-6	Explain Process of Digital Ortho Imagery Production		
III-7	Provides a CD with the required sample data		
III-8	Can Supply Deliverables in ArcGIS/ArcInfo Format		
IV	Is able to meet all the Final Delivery Specifications		
V-1	Supplies Information on Business Organization		
V-2	Supplies a Statement of the Problem		
V-3	Includes Workplan		
V-3	Includes a Calendar of the Proposed Work Plan		
V-5	Prior Experience		
V-5	Inclusion of Reference Addresses and Phone Numbers		
V-5	Inclusion of Experience of Subcontractors		
V-6	Provide Detailed Experience and Skill of Key Individuals		
V-7	Include Authorized Negotiator		
V-8	Address all Elements of the Cost Breakdown		
Attachment C	Complete Cost Response Form		

PART VI

MACOMB COUNTY QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES

- VI-1. **INTRODUCTION:** The successful Respondent will be responsible for ensuring that all deliverables are in compliance with the requirements set forth in this document and during contract negotiations. Specific quality control procedures that will be used should be described in the response.

The Macomb County Department of Planning and Economic Development has developed the following procedures for analyzing delivered digital ortho images.

- VI-3. **Digital Ortho Image Tiles:** The Department has developed a unique coding key (*section VI-4*) for identifying problems that may occur during the development of the deliverable orthophoto tiles. As sets of orthophoto image tiles are delivered by geographic township corresponding ArcView polygon and point themes will be created. Checking procedure will start in the upper left corner of the screen and proceed back and forth through the image. As problems are found, either a point or polygon will be drawn and the Error_Type and Comment fields will be populated. This field will contain the corresponding error code from the Problem Identification Key (*section VI-4*). Additionally, a QC Progress Form (*section VI-5*) will be completed for each delivered orthophoto tile. Once analyzed, the flagged orthophoto tiles will be returned to the selected Respondent for correction.

- VI-4. **Problem Identification Key:** The Department has developed the following key to code problems found within delivered digital ortho imagery tiles.

- 0- Unique problem (doesn't fit any particular category)
- 1- Edgematch
- 2- Mosaicing (noticeable difference in contrast)
- 3- Blind spot
- 4- Shadow (score of 1)
- 5- Glare (Water)
- 6- Glare (Non-Water)
- 7- Contrast (Too High)
- 8- Contrast (Too low)
- 9- Brightness (Too High)
- 10- Brightness (Too dark)
- 11- Smeared or warped portion of image
- 12- Structure obscures view of planimetric feature

- 13- Ghosting /disappearing structures
- 14- Unknown blemish
- 15- Digital artifacts

VI-5. **Digital Orthophoto QC Progress Form:** The Department has developed the following form to track QC progress for each Orthophoto tile received.

MACOMB COUNTY DIGITAL ORTHOPHOTO QC PROGRESS FORM

Date Received: _____
 QC Technician: _____
 Township: _____

Date QC'd: _____
 SEC #: _____
 SEC. 1/4: _____

ORTHOPHOTO CHECK-IN PROCEDURE

- | | | | |
|-----------|--|----------------|------------------|
| 1. | Is CD and Jewel case intact with no visible problems? | CORRECT | INCORRECT |
| COMMENTS: | | | |
| 2. | Is the label sticker centered on the CD and uncreased? | CORRECT | INCORRECT |
| COMMENTS: | | | |
| 3. | Does the file sizes appear to be appropriate? | CORRECT | INCORRECT |
| COMMENTS: | | | |
| 4. | Do all the files open? | CORRECT | INCORRECT |
| COMMENTS: | | | |
| 5. | Does index on CD jacket correspond with data on CD? | CORRECT | INCORRECT |
| COMMENTS: | | | |
| 6. | Does contents match index printed on the CD? | CORRECT | INCORRECT |
| COMMENTS: | | | |
| 7. | Does file naming convention match specifications? | CORRECT | INCORRECT |
| COMMENTS: | | | |
| 8. | Is the metadata file present on the CD? | CORRECT | INCORRECT |
| COMMENTS: | | | |
| 9. | Is the metadata able to be printed in a readable format? | CORRECT | INCORRECT |

COMMENTS:

DETAILED REVIEW OF IMAGES

1.	Accurate geographic position?	CORRECT	INCORRECT
----	-------------------------------	----------------	------------------

COMMENTS:

2.	Are photos tiled correctly?	CORRECT	INCORRECT
----	-----------------------------	----------------	------------------

COMMENTS:

3.	Is photo contrast correct?	CORRECT	INCORRECT
----	----------------------------	----------------	------------------

COMMENTS:

4.	Are photo edges properly matched?	CORRECT	INCORRECT
----	-----------------------------------	----------------	------------------

COMMENTS:

ADDITIONAL COMMENTS:

PART VII

CRITERIA FOR SELECTION

All quotations received shall be subject to an evaluation by the Department of Planning and Economic Development as deemed appropriate for the purpose of selecting the successful Respondent with whom a contract will be signed. The following factors will be considered in making the selection:

III-1 **RFP Approach:** These criteria include the ability of the successful Respondent to meet the terms of the RFP.

III-2. **Personnel Experience and References:**

Experience: This refers to the competence of professional personnel who are assigned to the project. The evaluation will take into consideration the personnel assigned by the Respondent, as well as, the personnel assigned by the sub-contractors. Resumes of individuals on the team will be evaluated based on their education and experience, with particular reference to experience on projects similar to that described in this RFP.

References from Other Clients: Respondents will be compared with respect to their work with past clients. Criteria shall include efficiency and timeliness in the delivery of products.

Work with Similar Size Counties: RFPs will be evaluated based on the Respondent's past experience in working with similar size counties. Emphasis will be placed on previous experience with respect to the extent of prior contracts with multiple deliverables required.

III-3. **QA/QC Procedures:** This includes the level of detail in the procedure and how well it integrates with the workflow of the Department.

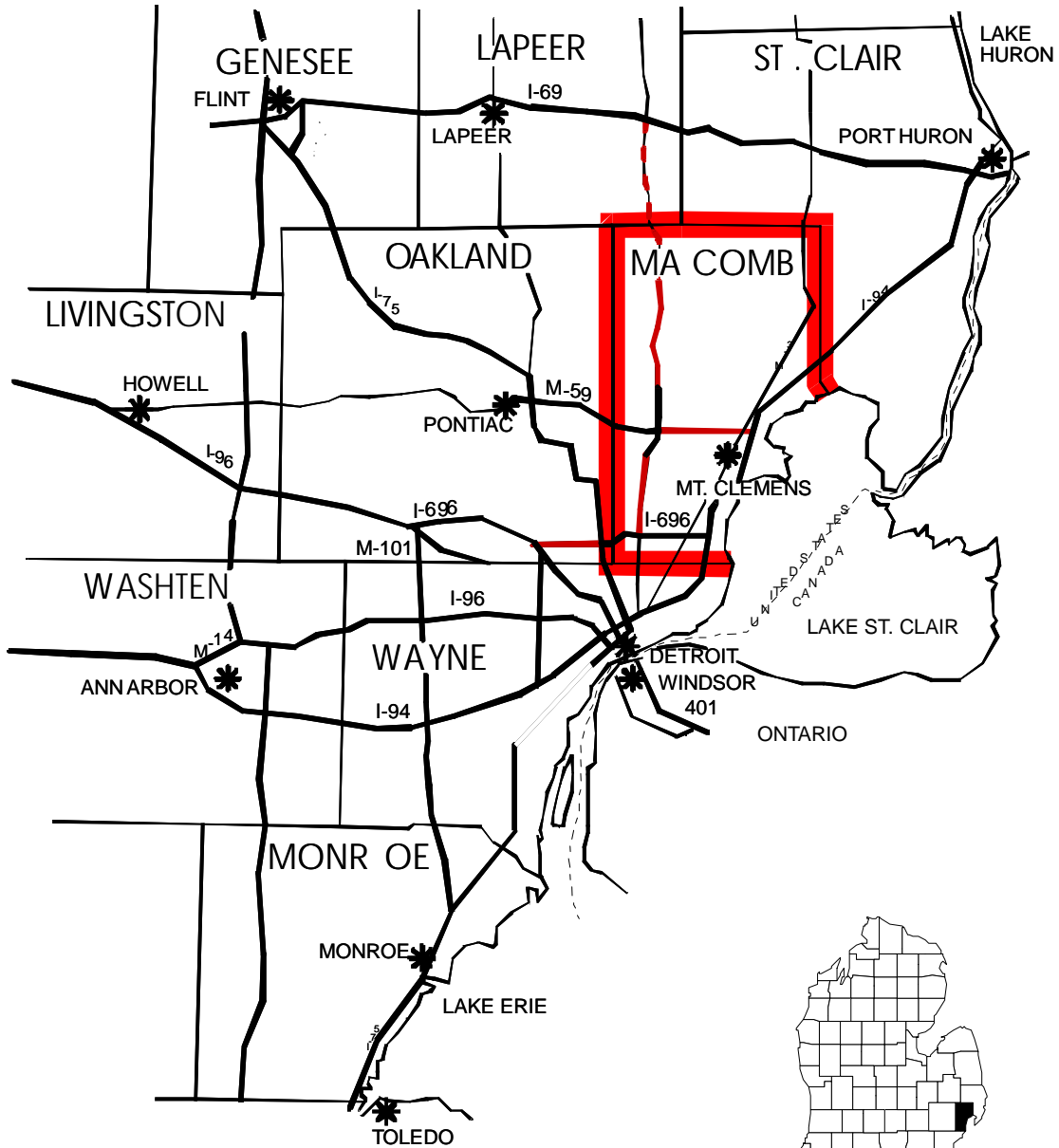
III-4. **CD of Previous Work:** This will comprise of a review of the sample products submitted on a CD.

III-5. **Price:** The review and selection process will use the estimated cost breakdown for the various sections of the RFP in evaluating all submittals.

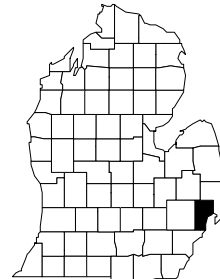
III-6. **Incorporation of Existing Data:** Comparison of RFPs will also be based on how well the proposal incorporates the use of existing data. In addition, special emphasis will be placed on the various methods selected for incorporating these data.

ATTACHMENT A

REGIONAL SETTING



REGIONAL SETTING



Prepared by:
Macomb County Department of Planning
and Economic Development
Phone: (313) 460-6296 Fax: (313) 460-6767

AN OFFICE OF THE MACOMB COUNTY BOARD OF COMMISSIONERS

ATTACHMENT B

FORMAL INTENT TO RESPOND

This form indicates the firm's intent to respond to this Request for Proposal

Firm Name: _____

Primary Contact Person: _____

Primary Contact Person Position: _____

Address: _____

Telephone: _____

Fax: _____

Email: _____

MAIL TO:

Macomb County Purchasing Department – 13th Floor
Attn: Ms. Polly A. Helzer, Purchasing Manager
10 N. Main Street
Mt. Clemens, Michigan 48043
Re: Bid No. 18-03

ATTACHMENT C
COST RESPONSE FORM

Survey Control Network Densification \$ _____

Aerial Photo Acquisition \$ _____

Digital Orthophoto Production
Orthophoto production \$ _____
¼ PLSS Image Set \$ _____

Total Project Cost \$ _____

Digital file production costs will include the cost of producing appropriate Metadata that will describe the lineage, quality and content of the files produced.